Supporting research through information literacy programmes: SMU Libraries’ learning journeys

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SUPPORTING RESEARCH THROUGH INFORMATION LITERACY PROGRAMMES: SMU LIBRARIES’ LEARNING JOURNEYS

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Abstract

Singapore Management University (SMU) has been building its research programmes towards high-impact and larger scale research. The number of postgraduate students has grown from 615 students in 2010 to 1,260 students in January 2015. The growing population of postgraduates, especially those with research requirements, has posed both opportunities and challenges to library’s resources, facilities and services. Library is committed to provide resources and services that support research. This includes developing and implementing Information Literacy (IL) programmes that are relevant to researchers and postgraduates. The IL programmes were structured and offered within an Information Literacy Framework that SMU Libraries have been using for the past five years. With changes in graduates’ population, diversity in graduate programmes, advances in technology, and complexities in research information literacy; the Framework, eventually, required re-evaluation and re-alignment. The main goal of the Framework was still to achieve the IL competency standards as outlined in ACRL’s Information Literacy Competency Standards for Higher Education (2000). However, the ways to develop, implement and promote the IL programmes, would benefit from a more flexible, yet practical Framework. By observing and critically evaluating the IL practice at SMU Libraries, this paper put together best IL practices that work well with postgraduates and molded them into a flexible IL Framework that supports research information literacy.

Keywords: Information literacy framework, information literacy for graduate students, research support
**Background**

Singapore Management University (SMU), established in year 2000, is a relatively young university. The University has six schools: Lee Kong Chian School of Business, School of Accountancy, School of Economics, School of Information Systems, School of Law and School of Social Sciences. Each school has one or more Research Librarians, who act as the main liaison and the subject specialist. In the past five years, the University has been building its research programmes towards larger-scale and high-impact research. In line with the research programmes, the University also developed and introduced various masters and doctoral programmes. Currently, there are 21 Masters Programmes and 5 Doctoral Programmes offered by SMU. The number of postgraduate students has doubled from 615 students in 2010 to 1,260 students (1,080 master's and 180 doctoral students) in January 2015. The growing population of postgraduates, especially those with research requirements, has posed challenges as well as opportunities to library’s resources, facilities and services. This paper focuses on the Information Literacy (IL) programmes that are developed by Research Librarians - in collaboration with schools or centres, targeted for postgraduates and aim to support the University’s research programmes. Specifically, this paper discusses the IL Framework that SMU Libraries have been using for the past five years.

**Examining the Current Practice**

IL models, in the form of standards, guidelines and frameworks, provide practitioners a starting point to build their IL offerings and plays crucial role in the promotion of IL (Martin, 2013). In the past five years, SMU Libraries have been using a single IL Framework for all type of audience. The Framework aims to achieve the outcomes as outlined in ACRL’s Information Literacy Competency Standards for Higher Education (2000). The framework provides Research Librarians with scaffolding when developing an IL programme and gives Research Librarians concrete platform to promote IL to the schools and getting collaboration and supports from faculty.

![Current Information Literacy Framework (Learning Pyramid)](image)

The framework explains the mode of delivery, the level of collaborations needed from schools/faculty, the expected number of audience, and, to some extent, the content of the IL programmes.

*Matriculation: Library Orientation*

Usually conducted at the commencement of the degree programme, the library orientation is part of academic orientation. The participation rate is very high since it is compulsory for new
students to join academic orientation. The content generally revolves around basic searching skills, finding materials listed on reading lists and library tour.

![Library Orientation: Total Attendance](image)

**Figure 2. Library Orientation: Total Attendance (2010-2014)**

In-class Sessions
The in-class sessions are tied in with specific course(s). They require full collaboration and input from teaching faculty, and are conducted during class.

Thematic Sessions
Thematic sessions are workshops, talks, and seminars organized by library, sometimes in collaboration with other Offices or vendors. They tend to have mixed audience and usually cover a specific topic or database (e.g. Publishing talk, Research Trend seminar, Bibliographic software workshop, Bloomberg workshop, etc.).

There was a significant decline in the thematic sessions that library offered in year 2014. This was mainly due to library renovation that took place in 2014, which reduced the logistical capacity.

Research Consultations
Research consultations are offered to individual or small group of students. Although students generally request for consultations, Research Librarian often offers the consultations to settle lengthy research enquiries that came from reference desk or email conversation. Research Consultation is an obvious overlap between reference services and information literacy services. Arguably it is a form of reference service, but it has many teachable moments where Research Librarian can impart various skills and share knowledge (Magi & Mardeusz, 2013).

<table>
<thead>
<tr>
<th>Year</th>
<th>Library Orientation</th>
<th>In-Classes</th>
<th>Thematic sessions (workshops, seminars, talks)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of sessions</td>
<td>Hours</td>
<td>Attendance</td>
</tr>
<tr>
<td>2014</td>
<td>18</td>
<td>23.25</td>
<td>630</td>
</tr>
<tr>
<td>2013</td>
<td>21</td>
<td>21.15</td>
<td>543</td>
</tr>
<tr>
<td>2012</td>
<td>21</td>
<td>23</td>
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</tr>
<tr>
<td>2011</td>
<td>12</td>
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<td>303</td>
</tr>
<tr>
<td>2010</td>
<td>11</td>
<td>11.5</td>
<td>265</td>
</tr>
</tbody>
</table>

Table 1. Information Literacy Programmes for Postgraduate Students (2010-2014)

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1 SMU Libraries have just started to record the utilization of Research Consultations Service in April 2015. Prior data may not be relevant as it did not differentiate postgraduates and undergraduates.
Although SMU Libraries’ IL Framework works reasonably well for undergraduate programmes, the framework may not address the challenges posed by postgraduate community. Student enrolled in postgraduate programme by research needs to be research-information-literate and have a good understanding of research life cycle (Mamtora, 2013). On the other hand, student enrolled in programme by coursework may not necessarily go into the deep end of research. Graduate students also benefitted from information literacy that are delivered at the points of need (Rempel & Davidson, 2008) and designed in multi-stepped approach (Tunon & Ramirez, 2010).

**Challenges and Requirements**

To re-align the IL Framework with the evolving needs of graduate students, it is crucial to address the challenges that both librarians and students are facing. It is expected that modified Framework may cater to, or even answer, the challenges. Some of the more prominent challenges are:

1. **Diverse programmes**
   SMU postgraduate programmes are incredibly diverse in curriculum, scheduling and delivery. While some programmes run with conventional two-terms per academic year, some have quarterly terms and condensed classes. The diversity created logistical challenges and barrier in providing timely IL programmes.

2. **The research population is growing, but the number of research librarians remains the same.**
   This may seem like an old (and tired) issue, but still has significant effect to the IL programmes. As the postgraduate population is projected to grow even more in the next five years, this issue could potentially become a serious hindrance.

3. **Changing nature of technology**
   The technological changes can be summarized in one word: rapid. SMU Libraries changed the library discovery platform in year 2012 and will undergo a library system migration, plus new discovery platform, in mid-2015.

4. **More complex research needs**
   Library's roles in research cycle are no longer confined to gathering information, bibliographic management, citation metric and repository. Research students turn to library to get better understanding of productivity tool (e.g. Google Drive, Dropbox) and new researchers are looking for library’s support in increasing their publications’ visibility. SMU Office of Research that manages research grants also asks library to carefully vet through datasets purchased for research. Some funding agencies may have requirements for research data management, hence the emerging needs of data management plan, which includes data preservation, archiving and sharing.

By looking through the challenges, it was obvious that a more flexible IL Framework would work better for postgraduate programmes. It needs to be flexible enough to accommodate different class-size and schedule. It also needs to have fluidity in contents; for example a critical introduction to a specific database can be embedded as part of orientation rather than delivering it on another IL session.

**A Proposed IL Framework**

The modified IL Framework for postgraduates shall continue to target the learning outcomes as defined in ACRL IL Competency Standards (or the revised version, once it’s published).

A web-based Question and Answer was conducted amongst five SMU Research Librarians who have been developing and conducting IL programmes for graduate students. The Q&A was used as a tool to gauge the usage and usefulness of the IL Framework and to map out best practices that work within their subject area or school. Below are the delivery modes that were discussed in the Q&A.
Library Orientation
All Research Librarians agreed that Library Orientation provides a good opportunity to create first impression. It gives avenue for Librarians to work with school administrators and to be part of school's matriculation activities. The drawback is that Orientation usually produces low retention and the schedules are determined by schools.

Classes
There were mixed reactions on classes. Although classes usually emerge from collaboration with faculty and school, certain school/subject may not need IL classes for their postgraduates. School of Information System (SIS) Librarian’s view was that SIS graduate students are self-sufficient, whereas School of Law (SOL) Librarians viewed classes as necessary since many graduate students need a legal research refresher. One Librarian from School of Business (SOB) conducted Applied Research Methods class for his postgraduates, where he conducted 3 class sessions which lasted 3 hours each. His biggest challenge: fitting the class into curriculum time.

Seminars, talks and workshops
Although there was a consensus that seminars/workshops are great and timely ad-hoc approach, there was a flag raised on the content. Seminars/workshops are mostly open for all types of audience. Therefore, generic or 'crowd-pleasing' topics are favoured. But this may not work well for graduate audience who might feel that the content is too general.

Research Consultations
The face-to-face consultation was generally favored by SOL Librarian. Online consultation was also highlighted by SOB Librarians. The engagement and interactions are deeper at the consultation level. The benefit to students is almost immediate and it showcases the value of subject knowledge. It was noted, however, that this mode tends to be reactive, may catch librarians off guard, and the queries can be overwhelming, at times.

Online
In addition to library website, library also has access to other platforms such as Research Guides (Libguides from Springshare), FAQ, social media and limited access to university's learning management system. SMU Libraries started with Libguides in year 2010 – churning out approximately 106 guides in that year. After five years and many edits, removals and additions, there were 179 guides available as of December 2014. The online mode was viewed as complimentary, self-help, self-paced and DIY approach. It was proven to be useful not only to students, but also to librarians who were not familiar with certain topics. However, Research Librarians also acknowledged the time and resources needed to keep the online delivery fresh and updated.

From the discussion, each delivery mode was useful to certain subject/school, to some extent. There was no clear distinction as to which delivery mode works best for all subjects/schools. This result was not surprising since we have established earlier that the IL Framework’s requirement is flexibility rather than a one-size-fit-all.
The proposed Framework (see Fig. 2) consists of two circles and divided into wedges. The inner circle represents the mode of delivery. The existing modes of delivery; Library Orientation, Classes, Seminars/Workshops, Research Consultation and Online Self-help Materials; are used to form the inner circle. The outer circle depicts the contents that are delivered through IL Programmes. Again, existing contents are used to form the outer circle.

Together, the two circles mold into a wheel, where Research Librarians can have various combinations of delivery modes and contents. A delivery mode can cater to more than one type of contents. For example, Library Orientation may cover Library Services, Facilities and basic Search Retrieval. However, it is perfectly fine to switch the Library Services and Facilities to an Online Self-Help mode and reduce the Orientation to just hands-on Search and Retrieval.

The wheel gives the much needed flexibility. The Framework becomes less prescriptive while still providing scaffolding in constructing and delivering the IL programmes. Research Librarians are free to mix and match the modes and contents to suit their subject and the diverse needs of the graduates.

The wheel is expected to expand and contract accordingly. There is a possibility that a new mode of delivery is matured enough to be adapted for graduates. In SMU, Librarians have used learning management system to deliver blended-learning IL sessions for undergraduates. It is, perhaps, just a matter of time before the blended-learning mode reaches the postgraduates. There is also a possibility – or maybe a certainty, that new contents are going to be delivered through IL programme, thus the expansion of the content circle.

**Conclusion and Further Work**

An Information Literacy Framework helps library in shaping, developing and promoting information literacy while still focusing on the learning outcomes. A flexible Framework works better in an environment where the changes are rapid and the research needs are diverse. The Framework also provides a convenient way to calculate the effort that has been invested on IL. It is not, by any means, an IL assessment or evaluation tool, but it gives a clearer picture of IL initiatives that library has been doing and identifies those that can be embedded in Schools’ curriculum or become part of Schools’ activities.
Moving forward, the proposed Framework can be tried out and adjusted. The effectiveness of the Framework can be qualitatively measured by how Research Librarians use and adept the Framework for their IL programmes; and quantitatively measured by looking into the time/resource spent in planning and executing the programmes. Over the time, it would be essential to again evaluate and critically examine the Framework.

References


